

# THE CANON NATIONAL PARKS SCIENCE SCHOLARS PROGRAM

Training the Next Generation of Conservation Scientists

## **2007 Application Guide**

### **Introduction**

The Canon National Parks Science Scholars Program has an ambitious mission:

*...to encourage the best and brightest graduate students in all relevant disciplines to conduct research important to the future of national parks, expand scientific knowledge concerning conservation and sustainability and share this knowledge broadly, develop future world leaders in science and conservation, demonstrate kyosei in an innovative partnership, and help preserve the national parks of the 21<sup>st</sup> century.*

By providing support to Ph.D. students throughout the Americas, the Canon National Parks Science Scholars Program hopes to develop the next generation of scientists working in the fields of conservation, environmental science, and national park management. It is these scientists who will learn, discover, invent, and create solutions to preserve the national parks of the 21<sup>st</sup> century.

For this program, the Americas include Canada, the United States, Mexico, the countries of Central and South America, and the countries of the Caribbean.

### **The Program**

The Canon National Parks Science Scholars Program is a collaboration among Canon, the American Association for the Advancement of Science (AAAS) and the U.S. National Park Service (USNPS). Begun in 1997, the program annually awards doctoral dissertation scholarships to support graduate student research in national parks.

Much of the science important to the future of national parks crosses traditional academic disciplines. Awards are made in four categories, broadly defined:

- biological sciences (including such disciplines as botany, ecology or conservation biology),
- physical sciences (including such disciplines as geology, hydrology and atmospheric sciences),
- social/cultural sciences (including such disciplines as economics, sociology, anthropology and archeology), and
- technology innovation in support of conservation science (including such fields as informatics, remote sensing, photomonitoring, and radiotelemetry).

The awards are based on competitions in each of the four categories. Briefly, the program operates as follows:

- Doctoral students submit research proposals related to one of the categories described above (eligibility rules are described later in this application guide).
- Student proposals are evaluated by international scientific panels convened by the AAAS.
- The AAAS panels select the winning students, who become Canon National Parks Science Scholars.
- The AAAS transfers scholarship funds, provided by Canon, to each student's university, providing for tuition, fieldwork, a stipend (set by the university), and other expenses associated with each student's research.
- The Canon National Parks Science Scholars complete their graduate research, write and submit a dissertation to their university, and prepare a general article for the public on the significance of their research to the management and conservation of national parks.

### **The 2007 Competitions**

In 2007, the program will award eight scholarships based on two separate competitions:

- Four Canon National Parks Science Scholars will be selected from students studying at universities in the United States.
- Four Canon National Parks Science Scholars will be selected from students studying at universities throughout the Americas, but outside the United States.

Each winning student will be awarded a Canon National Parks Science Scholarship of US\$80,000 paid in two installments.

In addition, Honorable Mentions will be selected from throughout all of the Americas.

Applications must be received no later than 3 May 2007. Awardees will be announced September 2007.

**To prepare a competitive proposal, it is very important that students and their faculty advisors read all the information in this application guide. Specific rules of eligibility and requirements for preparation of proposals are included. Proposals that do not meet the rules of eligibility or do not follow the requirements for preparation cannot be considered.**

### **Eligibility**

To effectively meet the objectives of the Canon National Parks Science Scholars Program, specific rules of eligibility have been established and govern the program:

1. Proposals can be considered only from currently enrolled Ph.D. (Doctor of Philosophy) students at an accredited university within the Americas who are citizens of a country in the Americas. The Americas include Canada, the United States, Mexico, the countries of Central and South America, and the Caribbean.
2. At least *some* portion of the student's proposed research must take place in—or be significantly and specifically relevant to—one or more national parks in the student's country of citizenship.
3. National parks are those protected areas officially recognized and identified as *national parks* by the national government of a country in the Americas.

4. Students enrolled in universities outside the United States but within the Americas, regardless of citizenship, will compete in the Americas category.
5. Students enrolled in universities in the United States, regardless of citizenship, will compete in the US category. An exception is if a non-US citizen is studying at a US university through a formal agreement with the student's home country university. In such cases, students are eligible to compete in the Americas category. (Please refer to item 2 in the "Application Instructions" below for more details.)
6. Students must have completed a majority of their coursework, and be able to complete the proposed dissertation research within three years of receiving an award.

It is the official policy of the Canon National Parks Science Scholars Program that university overhead is limited to 5% on scholarship funds expended through the program.

### **Application Instructions**

Students must submit a complete application packet to be considered for the 2007 Canon National Parks Science Scholars Program. The application packet must contain items 1-6 below. Please follow instructions carefully.

**All materials must be submitted in English, with the exception of the student's official transcript.**

Incomplete application packets cannot be considered. Additional materials that are not requested in the following instructions will not be considered in the application review and should not be included.

#### **1. Application Cover Sheet**

The two-page application cover sheet is available as a PDF file at <[www.canonscholars.org](http://www.canonscholars.org)>. It must be single-sided, completed, and signed by the student and the chair of the student's dissertation committee. It must include a proposal summary not to exceed 200 words. The summary should clearly identify the name and location of the national park(s) included in the research.

#### **2. Proposal Title Page**

The title page should include a) the title of the research proposal, b) the name and university affiliation of the student, and c) the names and university affiliations of all members of the student's dissertation committee.

(If you are a non-US citizen studying at a US university through a formal agreement with your home country university, and you would like your proposal to be considered in the Americas category, please include the request on this page. Indicate that you are studying at a US university through a formal agreement with your home country university and would like your proposal to be considered in the Americas category. You **must** include the name of your home country university and a contact person and phone number at that university.)

#### **3. The Proposal**

The proposal should include a concise discussion of:

- the research problem,
- key relevant literature,
- theory (and hypotheses if appropriate),
- research methods (including data collection and analysis of results),
- the name and location of the national park(s) included in the research,
- feasibility of obtaining needed research permits for collecting specimens, manipulating natural and/or cultural resources, or collecting information from park visitors,
- current and/or future relevance of the proposed research to national park conservation and/or management, and
- a schedule for completion of the research and dissertation.

Students should pay particular attention to describing the specific research methods to be employed in the research. This may include sampling plans, experimental designs, data collection methods, laboratory techniques, research protocols, statistical tests, and other aspects of the research methods (qualitative or quantitative) necessary for a full evaluation of the proposal.

Students are strongly encouraged to discuss their proposed project with national park staff prior to submitting a proposal. However, letters of support from park staff are not encouraged and will not be considered in the application process.

The proposal must be single-spaced and single-sided. All text in the proposal must be in 11 point or larger type. All pages should have one-inch margins. The proposal must be no longer than 10 pages in length, including references, bibliography, notes, graphs, maps, charts, tables, photographs, and other materials. Proposals longer than 10 pages will not be accepted.

#### 4. Resume or Vitae

The resume or vitae should include **only** the following information:

- name and contact information,
- all education and degrees beyond high school,
- all relevant work experience within the last ten (10) years or less,
- a maximum of five (5) peer-reviewed publications,
- a maximum of five (5) other publications,
- a maximum of five (5) other scholarly activities, and
- additional awards, service, and other experience relevant to the research proposal.

The resume or vitae must be single-spaced, single-sided, use 11 point or larger type, and have one-inch margins.

Please do not send a full resume or vitae.

#### 5. Transcript

An official copy of the transcript for all graduate coursework at the student's current university must be included. The transcript need not be in English; if university policy requires that the transcript be sent directly from the university to the program office, this should be noted in the application packet. It is the responsibility of the student to ensure that the official transcript is received by the application deadline. Transcripts of coursework at other universities are not required and should not be included.

## 6. Letter of Recommendation

The chair of the student's dissertation committee is responsible for preparing a signed letter of recommendation on official university letterhead. The letter should be single-sided and state the following:

- The student is currently enrolled in the university and has completed a majority of the required coursework for a doctoral degree.
- The student's proposal as submitted has been accepted by the dissertation committee and the student has the committee's approval to proceed with the research.
- The student's coursework adequately prepares the student for the dissertation research.
- The student can successfully complete the proposed research within three years.

In addition, the letter should evaluate the student's overall scholarly ability and capacity to complete the proposed research.

One copy of the complete application packet should be submitted. It must be received no later than 3 May 2007. Students are strongly encouraged to use an express mail service; late proposals cannot be considered. The packet should be mailed to:

Dr. Gary E. Machlis, Director\*  
The Canon National Parks Science Scholars Program  
College of Natural Resources  
University of Idaho  
Sixth and Line Streets, Room 16\*  
Moscow, ID 83844-1133, USA\*  
Phone: 208.885.7054\*

\*Essential for express mail.

## Frequently Asked Questions

1. *Can exceptions be made to the eligibility rules?*

The eligibility rules have been carefully developed to support the objectives of The Canon National Parks Science Scholars Program. Only students who qualify under these rules can be considered for a scholarship.

2. *Can a student submit a proposal on any topic within the biological, physical, social/cultural, and technology innovation categories?*

Yes. Students can submit a proposal on any scientific problem they consider important, within the four categories. The proposal must clearly identify 1) the name and location of the national park(s) included in the research and 2) the current and/or future relevance of the proposed research to national park conservation and/or management.

3. *Will a student's proposal be evaluated in only one category?*

Yes. Each student must identify on the application cover sheet within which category (biological, physical, social/cultural, or technology innovation) they wish their proposal to be evaluated. The student should identify a discipline or subfield that best describes their research topic. This information will be used to assemble the international review panels that evaluate student proposals.

4. *Can students select which competition—US or Americas—they wish to enter?*

No. Student proposals are assigned to the United States or Americas competitions depending upon the location of their university. For example, all students studying in US universities, regardless of citizenship, will have their proposals evaluated in the US competition. An exception is if a non-US citizen is studying at a US institution through a formal agreement with the student's home country university. In such cases, students will be eligible to compete in the Americas category. (Please refer to item 2 in the "Application Instructions" on page 3 for more details.)

5. *Can students conduct research in national parks outside their country of citizenship? What if a student has dual citizenship?*

Yes. However, some portion of the student's proposed research must take place in—or be significantly and specifically relevant to—one or more national parks in the student's country of citizenship. If a student has dual citizenship, a portion of the student's research can take place in either country.

6. *Can all of the research be conducted in protected areas other than national parks?*

No. Some of the research must take place in—or be significantly relevant to—one or more national parks in the Americas. National parks are those protected areas officially recognized and identified as *national parks* by the national government of a country in the Americas.

7. *How are the scholarship funds made available to each student?*

Each winning student will receive written notification of their selection and scholarship award. A letter of agreement will follow and require the approval and signature of the student, major professor and appropriate university financial officer. Once the letter of agreement is signed and

returned, a first installment for half of the scholarship funds will be transferred to the university. It is the responsibility of the university to distribute scholarship funds to the student and provide to the program an accounting of how funds have been expended. Based upon satisfactory progress of the student through the first 18 months of the scholarship, a final installment will be transferred to the university. Funds remaining at the completion of the student's dissertation are returned to the program, along with a final accounting of all expenses by the university.

8. *Is the requirement that students "complete the proposed dissertation research within three years of receiving an award" flexible?*

No. Students must be able to complete the proposed dissertation research within the duration of the award.

9. *What can the scholarship funds be used for?*

The scholarship funds can be used for tuition, books, fieldwork expenses (including research assistants), equipment and supplies needed to complete the research project, laboratory expenses, travel to field sites and scientific meetings, a student stipend, and institutional overhead. The amount of the stipend is set by the student's university policy. The scholarship funds cannot be used for faculty salaries, or other expenses not described above.

It is the official policy of the Canon National Parks Science Scholars Program that university overhead is limited to 5% on scholarship funds expended through the program.

10. *What criteria will be used in evaluating the proposals?*

The program is very competitive. Students and their faculty advisors should work diligently to prepare complete and professional proposals. The AAAS and its international review panels use general criteria in evaluating proposals, including scientific merit and creativity, current and/or future relevance of the proposed research to national park conservation and/or management, feasibility of conducting the research in a national park, and the capacity of the student to successfully complete the research.

11. *The application materials are required to be submitted in English. Can the completed dissertation and popular article about the research be written in a language other than English?*

Yes. The dissertation can be in any language acceptable to the student's university. The popular article can be in any language. For both, a brief English language abstract may be valuable.

12. *How do I apply?*

Interested students should complete an application packet and express mail the packet to the Canon National Parks Science Scholars Program Office so that it is received no later than 3 May 2007.

13. *If I have additional questions, whom should I contact?*

Please contact the Program Director, Dr. Gary Machlis, at the following e-mail address: <gmachlis@uidaho.edu>.